Notebook Series -- Notebooks by Edison,
Notebook, N-13-08-14.2

This notebook was used during the period August-October 1913. The entries are by Edison and an unidentified experimenter, possibly Sherwood T. (Sam) Moore. Included are notes pertaining to the printing and transfer processes involved in disc record manufacture and to the composition and preparation of record blanks. The entries at the beginning of the book describe problems experienced in record production and include Edison's proposal for a new "Inspection system for powder blank & Varnish Dept." The notes that follow pertain to experiments involving transfers made with experimental varnishes onto experimental record blanks. Edison's notes on the results of the transfers are accompanied by comments and observations regarding the progress of experimentation and also include instructions for Moore. Following these entries are notes by an unidentified employee [not selected] continuing the experiments on transfers. These entries, entitled "Ailsworth Exp.," run from August 29 to September 29 and describe work with the "213 powder blank" and various varnishes in an effort to improve the quality of the transfers. The entries by Edison at the end of the book describe a series of transfer experiments with variations in production schedules. These are continued in N-13-11-22. Edison's notes indicate that employees Jonas W. Aylsworth and Archie D. Hoffman assisted him in some instances. The front cover is labeled "Disc Record." The book contains 54 numbered pages, some of which are blank, followed by approximately 60 unnumbered pages.

Aug 14 1913

Trouble past 3 days in printing records – 50% Cracking on Edges

Transfers good,

Find old transfers print 90% good.

The trouble is in Powder Blank or Varnish or Leather

Glue helping me find bug

Veneer stripped from good prints on old transfers, smoked alcohol & adhesive fibre scraper off. Calipers from general examinement of Veneer from all parts of stripped sheet Except Label

10	10.6	10.2	Average
good Record	16.2	16.2	
	12.5	16.0	14.33
	13.0	16.7	1000
	14.5	12	thick

Average Calliper of Veneer from a bad record —

Bad Record

13.0
11.5
14.0
12.5
14.0
14.3
11.0
11.0
13.5
13.0
12.78 / 1000 -

Good Record 14.33
Bad Record 12.78
1.55

Nearly 002 thinner on bad
11% thicker on good —

Jura is now extracting the Creosol from a definite weight of powder blank both from good & bad record after veneer stripped — to determine, if the proportion of cream to wood fibre is the same

We notice that the old transfers printed on which give 90% good uncracked Edges — flows 1/32 more in diameter on printing than the new transfers we have trouble with in printing by 50% cracking around Edges many of the cracks extending into the image. New blanks or transfers seem to be dry — don't flow just as if they were shy of Creosol or had a dry lot of cream —

Hereafter I propose to establish an Inspection system for powder blank & Varnish Dept to check everything daily These are proposed

1st Transfer plates — remove hardened varnish from 3 plates & Cellaper Checkers

2 = Wear test 1st. 1/4 inch of music on 2 records daily 100 times.

3rd Check accuracy of thermometer in oven baking powder blanks instead one we permanently side by side 2 thermometers two they check on one a week check by a standard therm

4th Clean weighing scales once a week, check accuracy daily by weighing a 1 lb piece of nearly same weight as batches weighed regularly

5th - Each batch of Cream Resin is to be tested & passed before use, have a proper supply ahead to give time for test, Just for Nothing to offending points, Necessity of fresh Cream -

6th - 2 oz Sample Each batch of phenol Varnish drawn to be tested approved by inspector before it can be used — Varnish tested for 6/4 - Resin - Alcohol & Viscosity — Penta, other ingredients —

7 = Phenol Resin to be tested just like Cresol Resin —

8 Wood fibre tested for fineness on screen — also dried 212 to constant weight after —

9th = General sample of Powder from 6 powder blanks taken daily & Examined to ascertain amount of Charcoal, Blanks used must have been baked,

10th = Powder blanks must pass the ring gauge

11th The graduations of the following Machines must be all standardized to same Vernier —

12th Amount of powder from old Blanks stated Every day –

Experiments on mixing 18
powder - Varnish for Powder
Blanks -

Hoffman Numbers

598, Add 5 lbs of water
to the dry Wood, Pool lbs
mixes thoroly then puts
in Balloon of Creosol in
Alcohol mixes
& Dries Reg

599 - in 213 Creosol -
Vac Reg but dry it at
once in Vac Dries, dont
put in bin -

600 – Steam 115 start
117 height
110 Low
Lot 1 =
521 Varnish. Reg schedule

Transfer
water 60 lbs
when cooling

OK - ||||| ||||

Stuck hard ||
" free

Pull out 1
Chip out 1

83%

600 Dont flow as much as 601

Strainer

601 – ~~Stuck hard~~ 3 1/2 to 1

521 Varnish

Log press

No 2 Lot transfer big flow out
110 Steam 65 lbs Cooling water

225

Stuck – hard ||||
" free ||

OK |||| |||| | = 91%.

Chipped Edge 1

Transfer 602 Lot 1 –
521 Var, Stuck Edge of Blanks
100 @ 110 lbs Steam 60 lbs 65 lbs –

OK |||| ||

Stuck Hard ||
" free ||

Chipped Edge ||||

Evidently less alcohol so not it
Dont print,

#600 Done Reg way but
instead of 4 to 1 use
3 to 1 #225 WP Y...

601 – Same as #600
but 3 1/2 to 1 225 – ||||

602 4 to 1 using a solution
with 1/3 less alcohol, +
mixing this with 1/2 the
wood + they all other 2
of dry wood – 213 Cream

12

603 - Using Extra fine ground
Cereal Rice - 213 - + mixing it
dry with wood -
3 to 1 -

Not good - white spots of wood -
also mottled not enough surface
poor mixing - Not much hope of this

604 = 213 Cereal. Use only
1/2 the usual amount of
Cleaokal mix Reg
4 to 1

12 | 100 | 4 3,3
96
4,0
3,6
4

605 Lot No 2
Print.
OK III Must be mistake..
Cracked ||||||||
Correct 25%

605 - See Lot 1 = Hoffman wheat
powder — Baked 1 Hour
at 220 fahr Printed all OK 100%
12 blanks Transferred all OK
521 —

Transfers

12 of Burnt Tops

9 ok 1 2nd 521 Vac

2 Discards —

45%

6 Stuck to plate
2 free release
2 Hard release

12 Burnt Tops Prints —

Transfers Reg schedule

12 of Trimist Blanks 213 blanks
521 Vac

OK ~~||||~~ ~~||||~~

Big pull out Edge 1

Crack 1

83%

1 Stuck off by hand
" free release
" hard
" hard
" free hand
" free hand
" free hand

7

Transfer
12 of the Hooked Blanks 521 V
213 -

OK ~~IIII~~ III

Chipped edge IIII big — 1 Stuck plate, free release
1/2 " hand

66% =

This Evidently shows that Very Thick blanks tend to chip at Edges.

Transfers —

12 of Roughest Edges 521
213

OK - IIII

Chip Edges IIII (3 plain big, big) — Stuck to plate, hard; Stuck to plate - Cant get off free release; Stuck " "; Stuck "
Cant get off plate I
Comed - chip - I
Cracked I

4 stick. 33%
probably over baked

Everything points to Baking as Cause of our troubles,

605 ~~Transfers~~ — 3rd Loaf,

OK 10
Cracked 1
Chip Edge 1.
83%

4 – Crack ~~[illegible]~~
2 " Hard

Print of 605 3rd Loaf

OK IIII
Cracked ~~IIII~~ III

36% —

Transfer 16

605 Lot 4 Req Schedule

OK 𝍸 𝍸 I

Concl I

Mistake in number

Stuck free release,
Stuck - hard,
Stuck free release
Stuck hard —
Stuck Very hard,
Stuck free release

91%

605 Prints = Lot 4 —

OK 𝍸 𝍸 II

Concl - fine cracks 1/32 to 1/8 from edges

100% Concl.

7

605 Lot 5 Transfer 521 V

OK ~~IIII~~ IIII

Stuck = hard –
Stuck = free
Stuck = hard.
Stuck = free
Stuck = free
Stuck = hard

Concl.

Cracked II

pull out I

75%

Not going to print these % too low

Experiment – Took Reg Transfer 213 521 V Took 12 –

OK Eleven. 91% OK.

Chipped Edge I –

WE now print them acc % of print

Prints of above Expt, Reg Transfer

OK ~~IIII~~ III 66%

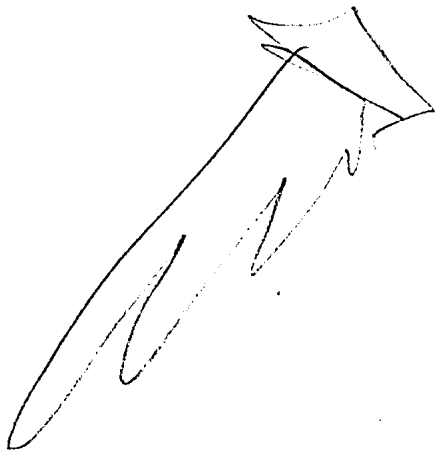
Cracked IIII

Reg curvature long crax around Edge

6th Lat Transformers
605 — Blocked O.C.,
decapitated exit of water
Took 15 min —

OK ~~IIII~~ ~~IIII~~ 4 sliark hard
4 " fractures

Comel
Crack like a bird big 11
Over corrected pressure to 100 lbs —
83% good —



Note Cracked both
sides alike & having
to blank — not transfer

Transfer — 19

601 — Lot 1 — 521 Van
109 press — blanks not
burned — water pressure coolers
Cooling 65 lbs — clean
under 107 lbs —

OK ||||| ||| —
Chipped Edges |||
Discard |

Stuck hard ||||| |
free |||

Print 601 Lot 1 as above,

OK |||
Cracks ||||| } This seems to prove that cracking not due to Transfers —
Corned

Rattler —

601 – Lot 2 Prints, see 601 Transfer for data –

OK II

Cracked IIII
Cracked both sides IIII { opposite each other –

Rattler, High ULP not good approximately or rather high –

Transfers – Hard pick good clear, chick head well quiet

599 Blanket Lot 1
Steam start 115 – slop 110
high 117 low 104 – Loader
in cold – led LBS – 521 Yard
Made record – let out – 213 –
flow considerable –

OK IIII IIII I

Stock Hard I
" Free. II

Chopped I

91%

Print Monday

No 600 - Print - Lot 1

OK IIII

Cracked IIII 33%

Cracked bath sides, III

Corner,

Resultant is that
With Special Schedule
on 521 varnish
Efficiency is 89.6%
Regular schedule 77.7%
With 384 Varnish
and Special schedule 70%
Regular Schedule 33%

Expts 12 Each Transfers run
reg schedule —

+ another schedule
7 min Contact
2 " Low
7 " High
9 " Cool —
} 7 min schedule

We transfer 12 by one schedule
+ 12 by the other + recommend

Reg	100%	50%
7 min	91% Print	100%
Reg	75 Print	37%
7 min	75	88%
Reg	66	
7 min	91 Prints	91%
Regular	85%	22% Prints
7 min	91%	91% Print
Reg	85	90% Prints
7 min	100%	

7 min fuser roll number accurate
So far no same cracks on 7 min at 5.8 gr. volume
amount lower
4 Easy 1 Hard
roller bigger
6 Easy 2 Hard
all free of plates
3 Soft 3 Hard scales

Now 384 Varnish Note

Reg	33%	checks, cracks, Very bad,
7 min (384 var)	66%	100% Stuck 5 Easy 1 Hard —
Reg —	33% All bad Prints	3 Stuck, Easy.
7 min —	75%	100% 3 " Easy.

With 548 Varnish no Pantos

LOS are running satisfactorily
12 transfer Reg Sched &
Special Schedule on press
as described on page
before this —

548 Varnish 213 Blanks

Reg Schedule — 33 1/3 Stick Easy 3 " Hard 4 —

Special Schedule 33 1/3 Stick Easy 3 5 Very Hard

Reg Schedule 3 OK = No good stick plater 7.9 all around

This varnish dont work

Will try transfer at Long Reading Schedule, Edges chap

& possibly this is due to Varnish not covering Edge

7.9 6/4 — 3/4 Pura

Print 4 of them 50%

2 Crax Edge

Very Strange,
This is Regular Varnish
Except 1/4 more Pentar
added —

220 Powder blank 607 Varnish
27 Discs 15 OK 2 Lifts 10 Discards
3 chd 5 peeled 2 Lifts — 2 stick to plate
55%

Prints 10 OK 2 [illegible] 2 dropped —
85% —

---

220 Powder blank 606 Varnish
Transfers made 28 —
4 OK 2 2nds 22 Discards
12 peeled 7 Lift 3 cracked —
9 stick to plate and discards —
14%

Prints, 3 only all OK 100%
This is Strange, 3 Comet 2 OK 1 neg

---

220 Powder Blank 609 Varnish
28 transfer 14 OK 2 2nds
12 Discards 6 peel 6 Cracked
50%

Prints 7 good 5 Cracked —
58%

354 coach

50% more Penta
+ 16 ng —
This is Remarkable

Can it be that each
kind of Varnish requires
a different Schedule
in Press looks like it

220 Powder Blank Transfer 26
4 OK — 608 Varnish
3 2nds
19 Discards — 4 Old 7 pooled 8 (left)

Prints, 4 — all OK 100%

Special Schedule No 610 Varnish
213 blank —

Some plates both alcohol
only lasted 1/2 day — all
Checks + bad synthetics
alcoholics NG Harrisburg
Para 519 = 6/4

Copied from page 22.

82.2

Special schedule 7 contact

Transfer	91%	Print	100%
"	91	"	91
"	91	"	91
	75	"	88
average	87%		92.5%

Reg Schedule

Transfer	75%	Print	37%
"	85%	"	22
	85%	"	90
	66%	"	
older series 1	100 — 82.2 av	"	50% 49.7 av

384 Var 213 Blank

Special 7 Contract schedule

Transfer	Print
66%	100%
75%	100%

Reg Schedule

Transfer	Print
33%	Off bad
33%	

Varnish 611 – 10% 5/4
Regular Schedule –
1 OK 11 Chipped at Edges
the only defect,

Varn 611 – Special Schedule
None OK Pull outs 1
Chipped Edges 8
Cracked 3

---

213 – 415 Varnish
168 Transfers made only
33 good –
Prints 25%

---

213 – 382 Varnish – 170 Transfers
23 OKs – 66%

No Penta –

384 — 213

2 Contact
1 Low
10 High
9 Cofal —

Spal Schedule.

OK ||||| 1

Stuck away
" Hard. 1

Cracked 1
Chiped Edge ||||

50%

384 213

10 Contact
1 Low
1 High
9 Cofal

10 mm Contact 1 on low 1 on high 9 Cofal

~~Bullcut~~

NG

All stuck
more or less
Some bad pieces

OK 1
Pull out 11
Chipped Edges — |||| ||||

all plates showed impression around Edge - Scarcely any in middle —

One plate welded + Tore off surface of blank over area of 15 or 20 inches but Varnish stuck to plate —

611 Varnish 213 blank

4 min - Contact
1 " Low
1 " High
9 Cool.

5 Lbs Steam

All stuck between plates got several off — The Varnish did not transfer to blank, merely took the impression of the rough surface of blank This is strange as 611 is soft at very low heat Evidently heat much plasticity or Schedule not hot Enough plates didnt steam on pulling well finger on —

Var 611 – 213

8 mm Contact
5 " Low
10 " High
10 " Coof.
} 100 lbs Steam

OK None —

Cracked ////
Edge Chipped ////

Too much para + no Ponta
Kills 6/4 —

4 Para 6 8 or 10%
6/4 to Resin ~ 5 mg
Large granules Para
5 mg –
521 has 2% probably
Phenol & Cresols
1% + 4 Penta,

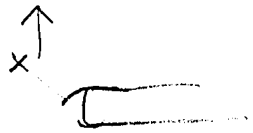
611 Var 213 Blank

Transfer plates left in
press 1/2 hour full steam
heat, to cure them +
harden – Most all
blistered, but 8 were
OK – These were
transformed by the
Phenol Schedule

N.G = Both plates stuck !!!
Can't get off.
Stuck –
Stuck
No conclusion I guess to
shear –

Rotten –

Note.



If the overhang veneer is lifted up it chipped back
when cooled

521 Transfer plates set on hot plates of press 100 lbs steam 1/2 hour
They all puffed up + came off easy hardwood seem to be underdried stock strain as 611 — but amount + smell just the same —

Var 611- 213

3 Contact
1 Low
1 High
9 Cool
OKT
Chipped HHI/III
Stuck 1

NG

Note —

The proper point to Harden is on high & long time —

Contact & Low dont do it as well —

213 — 384

Schedule —

3 Contact
2 Low
15 High —
9 Cold

OK ~~IIII~~ ~~IIII~~ All loose Except 1. Very Loose

Cracked 1

Chipped Edge very small 1

Prints 12.
OK ~~IIII~~ II
Cracked IIII 63%

83.3% good

This is the only lot that all transfers Except free of plates & the only one to stick came off & away

611 – 213

3 Contrast
2 Low
15 High
9 Good
OK – III

Stuck – Every HH I

Chipped Edges HH III
Cracked

27.5%

Note, frag from plates I

This shows successful
Effect of 15 High in
improving an impossible
transfer –

Note

521 — 213

3 Contact
2 Low
15 High
9 Coop.

OK ||||| |||

Free ||||| ||
Stuck Hard 1
" Easy 1

Chipped Edges 11

66.6 %

Crack 1 1

This schedule is not good for 521 — The Special

Scale 7 mm Contact —
2 Low
7 High
9 Coop. is Good for 521

See 521 on another blank 590 page 36

Note, There is more
performance for 590 than
213 on page 35

Sticks to plates less

521 on 590 Powder Blanks (Rosin)

3 Contact
2 Low
15 High
9 Cool

Moore cant say if blanks baked or not

OK ||||| ||||

Free ||||| ||||

Chip Edge small ||
"

Stuck Easy ||
" Hard

83.3 good

37

521 Year 590 Run Blank

See page 36 —

Prints

OR HH IIII

Cracked edge " "

81.8 %

good clean Edges, no shine

Aug 22 38

384 Varnish — 213

Schedule —

3 min Contact
2 " low
15 " High 800 lbs hydraulic

OK. ||||| ||

Free ||||| |
Stuck Easy |
" Did not number ||

Chipped Edge V ||||

Hopeless to burn

41% —

Only trouble is V cracks at Edge & then chips out;

No Print

Aug 22/13

39

384 — 213

3 mm Control
2 " Low
15 " High - 600 lbs hydraulic

Free ||||
Click 5 off |||
" Heard |||

OK ||||

Chipped Edge |||

Cracked |

No pull out or burns

50% OK

No prints

Chips out ~~where~~ there in
no Revinto bind the Edge

Aug 22/13 40

Van 384 — 213 blank

3 on Contract
2 on Low
15 on High 500 lbs Hydraulic

OK ||||

Chipped Edge HH||
Cracked |

Free ||||
Stuck Easy ||||
" Hard
Plate not separate |

No pullouts or bend

36% —

Dry all round chipped ||||
Wet + chipped where dry |

One chipped on edge where it was loose + where stuck |
Just opposite chipped where stuck |

Aug 22/13 41

521 Var 213

3 men Control

2 Low 800 lbs

15 High Hydraulic

OK ~~IIII~~ IIII

Free ~~IIII~~ III

Cracked I

Chipped II

No pullouts or burrs

75%

Dry all around II

Dry where cracked wet other points II

Wet in one spot but OK IIII

Wet opposite sides but OK I

Dry where cracked wet other places I

12 (90 84 (75

12 (70 (58
600
190
40

22 Aug/13 42

521 V 213 block

3 mm Control
2 Low
15 High

600 lb. Hydraulic

OK ~~IIII~~ II

Free IIIII
Stuck Sway IIII
" Hard II

Cracked III
Chipped II

No pull out or bends

58.3%

Dry all round OK ~~IIII~~ I
Dry where cracked wet in a few places I
Dry all round cracked II
Dry all " Chipped II
Wet one place OK I

Aug 22/ 43

521 Var 213

3 min Cooked
2 " Low 500 lb
15 " High

OK ~~IIII~~ II

Free ~~IIII~~
Stick Soft III
" Hard III

Chipped II
Cracked III

58.3%

No pull outs or bruise.
Dry all around but OK ~~IIII~~ I
Wet in one point OK I
Dry all around Chipped II
Dry all around Cracked III

Remarks

Tests on Transfers different hydraulic pressures.

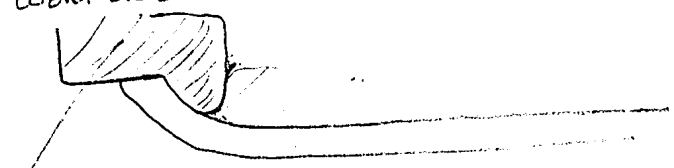
384 – 213	800 lbs	41%	6 free	
384 "	600	50%	4 "	
384 "	500	36%	4 "	42.3%

521 – 213	800	75%	8 free	
521 – "	600	58.3%	5 free	
521 "	500	58.3%	5 free	63.9

This shows as it always does the superiority of 521 – (1e) Para addition –

The whole of the trouble is at Edges the powder adheres to veneer, but condensate Contracts & tears off the blank. The Top layer or outside layer of powder dont seem to adhere at low hydraulic pressures, the V chip probably clings to Edge of plate, & V is pulled off –

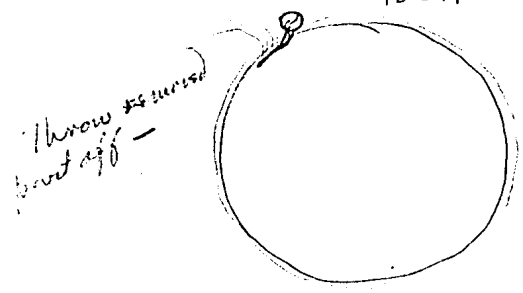
I think we would save a great many discards if a tool was run around Edge or a wiper to detach varnish from edge after varnish was dry or scraped solid after before went into oven



Tool to run around, removing some

Cant say how it would work in oven but think it would be OK as No 1. Mother Transfer was worked without an Edge,

Tool.



With low pressures the chips out are due to the fibres of the blank not being interlocked enough, hence the veneer tears easily the outer surface of the blank away with 1000 lbs however the fibres of the blank are pressed together + interlocked better, in addition the blank gets thinner + the resin is compressed from a large bulk into a smaller bulk + more intimate contact with the fibres so that the veneer has greater difficulty of tearing off the outer surface of blank. The only benefit of heavy pressures is that it increases the difficulty of printing by not filling on edges if not filled there is liability of cracks starting in unfilled edges.

22 aug/13 47

521 — 213 1000 lbs

3 mm Contract

15/2 " Low Height —

OK. ||||| ||||| |

Chipped |

Free |||

Stuck easy ||||| ||

" Hard |

(Platter not separated)

91.6%

No 10 Press,

12 to bottom of Press.

No 12 OK
11 OK
10 OK-
9 OK
8 OK.
7 OK
6 OK
5 OK
4 OK
3 OK
2 chipped.
1 OK

Aug 22/13 48

521 — 213

3 Min Contact.

15 " Low

2 High

800 lbs -
Hydraulic -

OK ~~IIII~~ II

Chip crack ~~IIII~~

Free II
Stuck Easy ~~IIII~~
" Hard III
Didn't separate at I

9 stuck
3 free.

50% -

12 - OK.
11 Top plate stuck. chip crack
Bottom ~~IIII~~ II 10 bottom plate " OK
9 " "
Top II II - 4
8 Both plates stuck, both easy OK
7 free - chipped.
6 OK free
5 Top plate stuck hard, chipped
4 Bottom plate chipped
3 " " OK
2 Top plate chipped
1 Bottom plate.

Aug 22/13 49

521 — 213 — 600 lbs Hydraulic

3 min Constant
15 " Low
2 " Hyd.

No 10 press

OK III 25%

Free I
Stuck Easy III
" Hard I
Couldn't get off III

Couldn't get off I
Chopped — IIII

Top IIIIIII
Bottom IIIIIII

12 Both stuck
11 Couldn't get off bottom
10 free, OK
9 bottom — OK
8 Top stuck, chipped
7 bottom chopped
6 both stuck
5 Top — OK
4 Both plates, bottom Easy chopped
3 Top, stuck
2 bottom
1 Top — chopped

7 Top
7 Bottom
Stuck

Doubtscam 6 & any difference

Note our machine for getting off trusted, had

Phenomenon on Chis
Cracked in central area
blow outs nothing to hold
Veneer while in Contact,

Aug 22/13 50

521 V 213 -

15 min Contact
3 " Low
2 High 1000 lbs

Aog press

OK III

Cracked, II
New blow out middle point + near edge. IIII
Chipped Edge I

Fine II
Stuck Soft IIIII
" Hard
not taken off I

27% —

Therefore we can use 220 blanks in regular work with the new schedule

These were taken from a regular man Making Reg Transfers —

91.3
91.3
75.0
83.3
90.9
75.0
91.3
91.3
91.6
75.0
75.7
85.9

12|90|(74
84
6

6|50|83.3

10|90

Aug 22/13 — 51

521 — 220 blank —

Req new schedule
7' Central 7 Height —

Req work —

OK ||||| ||||| |
Pull up 1 — 91.3%

2nd Lot

OK ||||| ||||· |
Left up 1 — 91.3 — 85.9%

3rd Lot

OK ||||| ||||
Chipped Edge ||
Cracked 1 same — 75%

4th Lot.

OK ||||| only 6 taken
Chipped 1 — 83.3

5th Lot

OK ||||| ||||
pull up 1 — 90%

Aug 22./13 52

521. 213

3 Min Contact
15 " Low
2 High

1200 lbs

OK ||||| ||||| |

Chipped Edge |

free
Stuck Easy ||
" Hard
by hand |

91.3%

2nd Round Same schedule
1200 lbs.

OK ||||| |||||

Chipped (from blow out) ||

Stuck easy ||
" Hard |

83.3.

Prints. 1200 lbs.
OK ||||| ||||| |

100%

Square filled ||||
Not quite a full at Edge, Count OK ||||
" " " in minus but OK |

9 pieces
521 213 — 1000 lbs

3 men Control
15 " Low
2 " High —

OK ~~IIII~~ ~~IIII~~

Free ~~IIII~~
Stuck easy III
" Hard I

Blow out Edge Cracked II
would be a chip out if
pulled at Edge

83.3

2nd Round Same as above

OK ~~IIII~~ ~~IIII~~ I

Free ~~IIII~~ II
Stuck easy III
" Hard.

Blow up crack at Edge I

91.3 %

Prints from above
OK ~~IIII~~ ~~IIII~~ II

100 %

Sharp Corners ~~IIIIII~~
Corners slightly rounded II

Moore

Also see page 52, shows that printing is OK for transfer matrix by curing Condemn. blank on low or long heat, + that even 1200 lbs is OK. but 1000 better because 1200 hardens blank so edge on comm. prints dont come up sharp, See page 52 matrix page 53. imprints not sharp comm.
Any pressure less than 1000 is bad. Note pages 47 48 + 49

Moore

You can safely vary the Schedule by taking time off of Either the Contact time or high time + adding it to LOW

Reg 7 Contact schedule
213 blank 521.

Difference is use of 213 instead 220 as against 220 page 51 —

OK. ||||| ||||| Free ||||| ||||| Stick Easy ||

Chipped Edge 1.

Brake edge of 1 not counted.

90.9 %

Moore

From all the experiments it looks as if long at contact is bad, that long on low or high is good. That long on low is best place to harden the Condensite. This is true of 220 or 213 blank
Hence best schedule with 521 would probably be
3 in contact
12 on low
1 on high —
Sorg good.
} to be tested

9-17-13

#213 Purple Blooms

#538 (Varnish (Lot 1444) flowed 9/13

No. of Leaves for plates 121

" " Lines near 12

" " Sec - 10

" " Sec - 0

" " Tie - 2 (1 second [illegible])

" Works very good - good surface

2 Stuck to plates - Lightly

Special (25-min) schedule used

Dis - 83+%

Print ?

Transfer

Varnish	Lines	Edges	OK	[illegible]
#669 - 1479	[illegible]	16	[illegible]	[illegible]
#670 - 1476	[illegible]	60	[illegible]	[illegible]
#671 - 1479	[illegible]	42	[illegible]	41

#669 5[illegible]

#670 1[illegible]

#671 34[illegible]

Quality

	Total	OK	Bad	%
#669	- 54	37	17	68.5
#670	- 60	36	24	60.
#671	- 42	27	15	64.2

Special Experiment - Lowering pressure to 300 lbs + then Cool
Regular Varnish + new schedule - 632 Varnish
Lot No 1486 - 213 Powder Blank
360 grms — 5 Stuck to plate
Oct 2/13 =

20 ok
3 chipped at Edges
1 Big Bird -

84%

This apparently shows that if tried on large scale this change might be advantageous
Cant determine on such a small lot Note Crackle seems to be less -

Oct 3/13

Blanks #213
Weight 390 gr. after trimming
.260 + .271

.270	.260
.258	.262
.272	.265
.255	.271
.273	.264

We cannot use a blank that weighs 390 gr. it is too thick

Stamping thickness is from .200 to .250

Duplicate of No 1

OK III 50%

Birds III

Print OK II 35% —

Hig. Crack & Bird at Edge IIII

Long Schedule is

16 min Cooking

Regular Schedule

8 min

No 1 schedule is

10 min

No 2 Schedule is

11 min

No 1 has 1/8 from Edge red row of Break & Eggshell pressed not filled in more —

2 = Red row breaks 1/2" in —

3 Bird in middle

5 Red row of breaks —

Experiment on Transfer with modifications of the Short Schedule

Req Short Schedule is

2 Contact 1 low 5 High

800 lbs

Variation of short Schedule

No 1 = 3 Min Contact 7 min 800 lbs = Coal

6 Transferred 5 OK

1 Bird inch in from edge 1/8 bird — veneer chipped out not burn to blank

83%

Print. OK IIII

One of OK had Crax

100%

test for 15 inches only

Variation short schedule
No 2

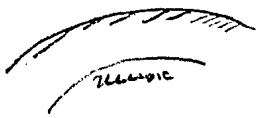
3 Men Contract
1 Low
7 High — Coal —
6 Transfers

OK ||||
Bird 1

Bed in one of the OKs there are 2 Birds
1/2 from hole in center & stuck very
Tight to plate,

83%

Prints -
OK ~~HH~~ 1

Many have 

100% —

No 3 Short schedule.

2 Contact.
7 High 800 LGs

6 Transferring

OKs 3.
Burds 3.

1 Blank has 2 burds 1/2" from hole underlay a series of fine cracks on margin on other side

2 Blanks have 2 burds 1/2" from margin another 1" from margin
Other side OK

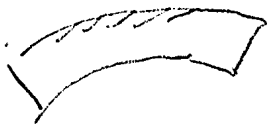
3 Blanks have burd one one side 2" from Edge another 1" from Center hole
Other side OK.

50%

Print,

OK III

Cracks Edge 1
Bird 1



11

all filled in
Centers

60%

4th Short Schedule

2 mm Contract
6 " High 800 l Gas
Cool C –

6 Transfers –

OK 3.

Birds 3 – 2 has strong of Birds
1/4 @ 3/16 from edge one side only
one side only – also has bands in
numbers also in numbers

doesn't show plate
Contract ~~Cracks~~
Mottled Lake on
Cooked transfer –
Egg shell.

50%

No 5 Schedule -

4 min Contact.
6 " High 800
6 free release

OK 4
2 Bends 1 has 2 bursts in release 1 row of seed breaks 1/4" of Edge

66%

Prints — 5 —

OK ||||
No Cured by -

66%

1

wet fall Tacky 1 No Red in Coulee

NOG Schedule -

5 minutes Concert
5 " High 800

5 free relaxers 1 stretch
Red Centers

OK 5 -
1 Bunch bad good Centers

83%

Prints 5

OK 1 25%

Bad centers ||| Red didn't print full
near Label - |||

Crap near Label Red

Red Centers don't fill

Hog Schedule

5 mm Contract
5 " High 800

No ~~1~~ 7

6 number Contact
4 " High 800

All free release

QR II
Band IIII

Very Red +
bad Center
wrapped yet,
on band

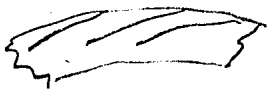
1 has new red breaks 1/4" Edge

35%

Prints 2 =

Didnt fill Edge 1
Crack 1

00%



No ~~4~~ 8

7/3 Mein Contract
" High 400

Transfer 4 free release 2 Stuck

OK ||
Bind ||||

Binds both sides ||

1 OK has bad read eggshell big on label.

35%

Prints 3 —

OK 00%

Cracked Edge ||
not filled Edge 1 } 3

No 9

8 Min Contact
2 " 8000 High -
5 free released 1 Stuck -

OK ||||

Birds, || ½ raw red

Red Centers, large, irregular, + eggshell -

66%

10 Schedules

9 Minutes Contact

1 Minute High 840 Cb

5 free scalent 1 stuck

OK II - Doubtful

Burden, III

Very large seed Centers,

+ all 299 +.

16.5 %

Punching

OK II not connec — 00%

Large Cracks 1 -

Red not filled in Center connec II

Listened to 3

1 - Loud outside Feller Mid good inside No RO
2 " " RO

1 " " RO
2 " " RO

1 - fair to good - good - No RO
2 Loud — Big RO

NG for surface

258 - Reg Cereal powder Machine
Packed - about schedule - 800 lbs
2 1 9-5 min - 2 stuck 4 free
Transfer

OK ||||

100% -

Printing -

OK. ||||

Cracks Edge. 1

83%

No 11

2 Contact,
8 High — 800 lbs

OK IIII

Bends II

Edge 3/8 in rounded Cracks - 1
Binding musical

66% —

Printing 5 =

60%

OK III
Cracks Edge II

No 12 Schedule

2 Contact

10 High 800 lb —

OK. IIII

100

No Red Centers on Transfer

Prints 6 —

OK. II

Cracked Edges Bad IIII

33%

Proof 3 =

OK III 100%

14 Schedule. — no control

800 High

1 9 minutes — 6 free selections

OK. III

50%

1 small Bird 1

Birds 11

Blank edge crushed 3 of them

Birds in deep depressions —

There depressions have something to do with birds —

The records have only four
Surface 1 Round - 2 flat RO
1 RO — Not good — yet
surprising

Test for Surface

Note for
No 33
Print-
OK III 100%

Most Surprising

Thomas

Special Expt-

Contact 1/ min — No pressure
Except the 100 lb.
Heated & then cooled
no pressure —
all free release

Surprising — Half the area
is transferred OK —
inside or center very red &
Cooked up no pressure

OK III of course they are
all cooked up but no other
defects we will permit —

This shows that 100 lbs
pressure would transfer
if blank & veneer &
platen were perfectly
flat & even —
S S

Whole transfer is good to fine surface —

12) 50 (41.
48
2 0